REMARKS

Rejection under 35 USC 112

Claim 13 stands rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The rejection is based on the overlap of the range (12.5 pounds per inch of width).

Claim 13 has been amended to depend from Claim 1. Applicant now believes the rejection to be overcome and respectfully requests the withdrawal thereof.

Rejections under 35 USC 102

I. **Claims 1 and 9 are rejected under 35 USC 102(b) as being anticipated by Allen (US Patent 5,922,995).**

The Examiner's argument is essentially as follows:

> "Allen discloses, for claim 1, at least one cable member disposed within a conduit and an innerduct structure for dividing said conduit into compartments, said innerduct structure formed from a generally flat strip of flexible material disposed within said conduit adjacent said cable member. For claim 9, the innerduct structure is at least as wide as the diameter of the conduit."

From Applicant's review of the Allen '995 patent, it appears to teach "a partitioning device ... provided with any number of web members, depending on how many separate longitudinal sections into which it is desired to separate the interior of [a] conduit." (Col. 4, lines 44-47) Allen further teaches that "the width of [the] web members is such that the combined width of two such members, extending in the same plane, is slightly less than the inside diameter of [the] conduit, preferably extending to a width of at least approximately 80 percent of the inside diameter of [the] conduit." (Col. 4, lines 53-58) In addition, Allen teaches the use of plastic (e.g., polyethylene) web members that may be supported by a strength member made of steel or fiberglass. (Col. 5, lines 28-41)

MPEP 2131 states, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Applicant has amended Claim 1 to include the limitations of Claims 2 and 9. As such, Allen does not teach all of the limitations of Applicant's claims (for example, a textile fabric having a width at least as wide as the diameter of the conduit).

Because the reference fails to teach all of the limitations of Applicant's claims, Applicant submits that the rejection is improper and respectfully requests that it be withdrawn.

II. Claims 1 and 9 are rejected under 35 USC 102(b) as being anticipated by LeCam et al. (US Patent 6,246,820).

The Examiner's position is essentially as follows:

> "Le Cam et al. disclose, for claim 1, at least one cable member disposed within a conduit and an innerduct structure for dividing said conduit into compartments, said innerduct structure formed from a generally flat strip of flexible material disposed within said conduit adjacent said cable member. For claim 9, the innerduct structure is at least as wide as the diameter of said conduit."

Applicant has reviewed the LeCam reference and notes that it solves the problem of separating a conduit into compartments by providing a plate surrounded by ribs, which is then positioned inside the conduit with the ribs pointing toward the outermost periphery of the conduit. The dividing element is made of polyethylene or PVC, which is cut so that its width is close to the size of the interior perimeter of the conduit.

Applicant has amended Claim 1 to recite that the innerduct structure is made of a textile material and that it is at least as wide as the diameter of said conduit. No such structure is taught or suggested by LeCam.

Accordingly, the LeCam reference fails to teach all of the limitations viewed as the invention. For this reason, Applicant believes the rejection to be improper and requests that it be withdrawn.

III. Claims 1 and 9 are rejected under 35 USC 102(b) as being anticipated by Allen (US Patent 5,587,115).

The Examiner's position is essentially as follows:

> "Allen discloses, for claim 1, at least one cable member disposed within a conduit and an innerduct structure for dividing said conduit into compartments, said innerduct structure formed from a generally flat strip of flexible material disposed within said conduit adjacent said cable member. For claim 9, the innerduct structure is at least as wide as the diameter of said conduit."

The Allen '115 patent is directed to a "conduit assembly which is manufactured with a free-floating partitioning device therein to divide the casing into two separate chambers so that more than one cable may be placed in the casing without interference from another cable which might be in the casing." (Col. 1, lines 13-18) The free-floating partitioning, or web member, is made of polyethylene material and has "a lateral dimension slightly less than the internal diameter of the casing." (Col. 3, lines 24-28)

Applicant has amended Claim 1 to recite that the innerduct structure is made of a textile material and that it is at least as wide as the diameter of said conduit such that at least one edge thereof conforms to the interior of the conduit. No such structure is taught or suggested by Allen's '115 patent.

Accordingly, the Allen '115 reference fails to teach all of the limitations viewed as the invention. For this reason, Applicant believes the rejection to be improper and requests that it be withdrawn.

IV. Claims 1 and 9 are rejected under 35 USC 102(b) as being anticipated by Hubbard (US Patent 4,585,034).

The Examiner's position is essentially as follows:

> "Hubbard discloses, for claim 1, at least one cable member disposed within a conduit and an innerduct structure for dividing said conduit into compartments, said innerduct structure formed from a generally flat strip of flexible material disposed within said conduit adjacent said cable member. For claim 9, the innerduct structure is at least as wide as the diameter of said conduit."

From Applicant's understanding, Hubbard et al. teach a multi-chambered conduit insert for dividing a single conduit into smaller compartments. In one embodiment, two inserts are used, in back-to-back relationship, to form an insert assembly for the conduit. The inserts are made of a plastic material, such as an olefin (for example, low density polyethylene). (See Col. 3, lines

58-64.) Thus, the Hubbard et al. reference does not teach all the limitations of the Applicant's claims.

Additionally, the Hubbard reference teaches that the diameter of the insert (shown as "B" in Fig. 2) is less than the diameter of the conduit. Column 4, lines 11-18 describe the dimensions of the conduit and the insert (for example, an insert with a 3.17 inch width will be used with a four-inch diameter conduit).

Thus, the Hubbard reference fails to teach two of the limitations of Applicant's Claim 1. For this reason, Applicant believes that the rejection is improper and respectfully requests that it be withdrawn.

V. Claims 1-6 and 9-21 are rejected under 35 USC 102(e) as being anticipated by Morris (US Patent 6,671,440).

The Examiner's position is essentially as follows:

> "Morris discloses, for claim 1, at least one cable member disposed within a conduit and an innerduct structure for dividing said conduit into compartments, said innerduct structure formed from a generally flat strip of flexible material disposed within said conduit adjacent said cable member. For claims 2-6, the innerduct structure is formed from a textile material, the textile material is a woven fabric, the woven fabric is formed from monofilament yarns in the warp and fill directions, and the deniers are between 200 and 1000 polyester and nylon.

> "For claim 9, the innerduct structure is at least as wide as the diameter of said conduit. For claim 10, the flexible material has a melting temperature of at least about 220 degrees C. For claim 11, the cable includes an outer sheath that has a first melting temperature, and the flexible material has a second melting temperature not lower than the first melting temperature. For claims 12-13, the flexible material exhibits a longitudinal tensile strength of at least about 12.5-300 pounds per inch of width. For claims 14-16, the flexible material exhibits an elongation percentage of not greater than about 75%, 40%, or 25% at peak tensile load.
>
> "For claim 17, the flexible material has a coefficient of friction, based on high density polyethylene on said material with a longitudinal line of action, below about 0.1250. For claim 18, the flexible material is selected so that a 0.25 inch diameter polypropylene rope will not burn through a test sample of said structure when pulled through said test sample in a pull line duct cutting test at 100 feet per minute and 450 pounds tension for at least 90 seconds. For claim 19, the flexible material is a fabric having warp and fill yarns formed of polyester. For claim 20, pulling means are disposed within said conduit adjacent said innerduct structure. For claim 21, the pulling means is selected from the group consisting of pulling tape and rope."

From Applicant's understanding, the Morris reference is directed to an innerduct structure formed of a plurality of textile strips that are joined along their longitudinal edges to form a number of channels into which one or more cables may be inserted. Although individual strips used in the Morris structure may have a diameter at least as wide as, or wider than, the diameter of the conduit, the overall width of the Morris innerduct is less than the diameter of the conduit (as shown in FIG. 3) to "minimize frictional engagement of the innerduct with the conduit" (Col. 3, lines 54-61).

In an alternative embodiment, a single width of fabric is folded over itself to form the channels for cable insertion. In such instance, after folding, the fabric is secured on the outermost areas of overlap to secure the channels in an open position. (See FIG. 7.)

Applicant has amended Claim 1 to recite that the innerduct structure consists essentially of a generally flat strip of flexible textile material that is at least as wide as the diameter of the conduit and that one edge of the flexible textile strip conforms to the interior of said conduit. Such structures are shown in Applicant's FIG. 1 and 2.

The transitional phrase "consisting of" excludes any element, step, or ingredient not specified in the claim. (MPEP § 2111.03). Applicant respectfully submits that the inclusion of multiple layers of textile material as disclosed in Morris would fall outside the scope of the presently amended independent claim of the application.

Morris provides no teaching of a single layer divider for a conduit. Rather, the preferred Morris structure includes "two, three, four, or more strips [that are] used to define overlying layers in accordance with the invention" (Col. 4, lines 31-33), where the layers "contribute to the open configurations of the channels defined by and between the layers" (Col. 7, lines 8-10). Thus, the Morris innerduct is not equivalent to that claimed by the Applicant.

Because the Morris reference fails to disclose all of the limitations of Applicant's claims, Applicant believes the rejection to be improper and requests that it be withdrawn.

Rejection under 35 USC 103

Claims 2-6 are rejected under 35 USC 103(a) as being unpatentable over Allen ('995) or LeCam et al. ('820) or Allen ('115) or Hubbard ('034).

The Examiner's position is essentially as follows:

> "The references disclose all of the limitations of Claim 1, as shown above, but does not disclose that the innerduct structure is formed from a textile material, that the textile material is woven, that the woven fabric is formed from monofilament yarns in the warp and fill directions, and that the yarns have a denier in the range of 200 – 1000 and are polyester in the warp and nylon in the fill. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to select these materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice."

Claim 2 has been cancelled, with the limitations therein being incorporated into Claim 1. Therefore, the rejection of Claim 2 is now moot.

As has been discussed above, none of the four references used in this rejection teach all of the limitations of Applicant's (amended) Claim 1. Specifically, none of the references teaches an innerduct structure made of textile fabric that is at least as wide as the diameter of the conduit into which it is inserted. Applicant contends that the selection of specific elements—such as textile construction (woven), yarn type (monofilament), yarn size (200 – 1000 denier), and yarn material (polyester or nylon) and placement (warp or fill)—would not be obvious based on these references, because the references do not teach or suggest a textile innerduct. Since a textile innerduct is not contemplated, Applicant believes that further specifications for such a structure are not readily apparent to one of skill in the art.

Because Claims 3-6 depend from Claim 1, either directly or indirectly, and contain all of the limitations of Claim 1, and because the references do not teach or suggest all of these limitations, Applicant believes the rejection to be improper and requests that it be withdrawn.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that all claims now stand in condition for allowance.

Should any issues remain after consideration of this Amendment and accompanying Remarks, the Examiner is invited and encouraged to telephone the undersigned in the hope that any such issue may be promptly and satisfactorily resolved.

This Response is accompanied by a Petition for Extension of Time (one month). In the event that there are additional fees associated with the submission of these papers (including extension of time fees), authorization is hereby provided to withdraw such fees from Deposit Account No. 04-0500.

Respectfully submitted,

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